

**NORTHWEST LININGS &
GEOTEXTILE PRODUCTS, Inc.**

21000 77th AVE. SOUTH
KENT, WA 98032
253-872-0244
FAX 253-872-0245

Date: 3-2-09

PLEASE DELIVER TO: Kevin Lee

COMPANY NAME: CDM

FACSIMILE NUMBER: 425-646-9523

FACSIMILE FROM: David Iwata

COMPANY NAME: NORTHWEST LININGS & GEOTEXTILE PRODUCTS, Inc.

FACSIMILE NUMBER: (253) 872-0245 OFFICE NUMBER: (253) 872-0244

TOTAL NUMBER OF PAGES TRANSMITTED INCLUDING THIS PAGE: 3

SUBJECT: Old Rainier Brewery BMP's items



**NORTHWEST LININGS &
GEOTEXTILE PRODUCTS, Inc.**
"Helping to Protect the Environment"
21000 77th Avenue South
Kent, WA 98032
(253) 872-0244 • (800) 729-6954
FAX: (253) 872-0245
www.northwestlinings.com

\$ 35 each reg. sock

Ultra-DrainGuard®

Keep Sediment and Other Pollutants From Entering The Water System With Ultra-DrainGuard Catch Basin Inserts

- Stormwater pollution has become a major concern both locally and on a national level. Ultra-DrainGuards remove waste from stormwater before it can become a problem in the water system.
- Helps comply with NPDES, 40 CFR 122.26 (1999) when used as Best Management Practice in Storm Water Pollution Prevention Plans.
- Designed for practical use in:
 - Industrial Facilities - keep oil and other contaminants from entering storm drains.
 - Construction Sites - capture eroded soil and wind-blown debris.
 - Parking Lots, "Drive-Up" Retail Facilities - selected geotextiles collect oil, fuel and other contaminants that drip from cars.
- **Oil & Sediment Model (Part # 9217/9356)** — removes up to .87 gallons of hydrocarbons as well as dirt, sand and other contaminants.
- **Oil & Sediment Plus Model (Part # 9219/9358)** — the addition of X-Tex filter strips increases oil and grease absorption by .51 gallons, offering a total capacity of 1.38 gallons of hydrocarbon removal.



ULTRA-DRAINGUARD	
Oil & Sediment Model	
Part# 9218, 48"L x 36"W x 18"H (10-Pack)	
Weight: 10 lbs. (Part# 9218) 2 lbs. (Part# 9356)	
Performance - Oil: Up to .87 gallons Sediment: Up to 40 lbs.	
* The total water flow rate through the insert in new condition is in excess of 500 gpm. The bypass rate is approximately 700 gpm.	



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354 / yd² w/SS a yard

PermeaTex NWL 500 Spun Bond Geotextile

Our PermeaTex NWL 500 geotextile is a spunbonded, polypropylene geotextile that is recommended for drainage, filtration, separation, and soil reinforcement applications. Specific areas of use are subdrainage under roadways and playing fields, foundations, railway construction, rock buttresses, and slope drains. These geotextile products are resistant to ultraviolet degradation and to biological and chemical environments found in normal soil areas.

PHYSICAL PROPERTY	UNIT US Values	TEST METHOD	MARV VALUES US Values
Unit Weight	Oz/yd ²		2.0
Roll Width	ft		3'
Roll Length	ft		300'
Grab Tensile	lbs	ASTM D4595	67
Grab Elongation	%	ASTM D4632	50
Puncture Strength	lbs	ASTM D4833	20
Mullen Burst	psi	ASTM D3786	80
Trapezoidal Tear	lbs	ASTM D4533	34
A.O.S.	U.S. Sieve	ASTM D4751	30
Water Permeability	cm/sec	ASTM D4491	0.10
Water Flow Rate	gpm/s.f.	ASTM D4491	184
Water Permittivity	sec	ASTM D4491	2.5

Note: Minimum average roll values are based on a 95% confidence level.

PermeaTex™ Geotextile Products are manufactured by various manufacturers for distribution by Northwest Linings. PermeaTex™ is a trade name of Northwest Linings and any use of this name without the express written consent of Northwest Linings is strictly prohibited.

The information and data contained herein are believed to be accurate and reliable. Northwest Linings makes no warranty of any kind and accepts no responsibility for the results obtained through application of this information.

FAX TRANSMITTAL

**ACF** WEST INC.
GEOSYNTHETIC PRODUCTS

ACF West, Inc. is a U.S.A. member of Oregon Geosynthetics, Inc. in Oregon and N.W. Geosynthetics, Inc. in Washington and Idaho

ATTN: KEVIN CO. EDM FAX # 425-646-9523SENT BY: DON DATE FAXED: 3/4/09 TOTAL # PAGES: 4 (Including Cover)MESSAGE: KEVIN - The FF101 COMES IN ORANGE & BLACK.
THE ORANGE IS .10 MORE PER SQ. YD.DONWoodinville Corporate Center II Bldg. A #400
15540 Woodinville-Redmond Road, Woodinville, WA 98072425-415-6115
800-423-4567

Fax/F 425-415-6126



Dandy Drop Inlet Protection

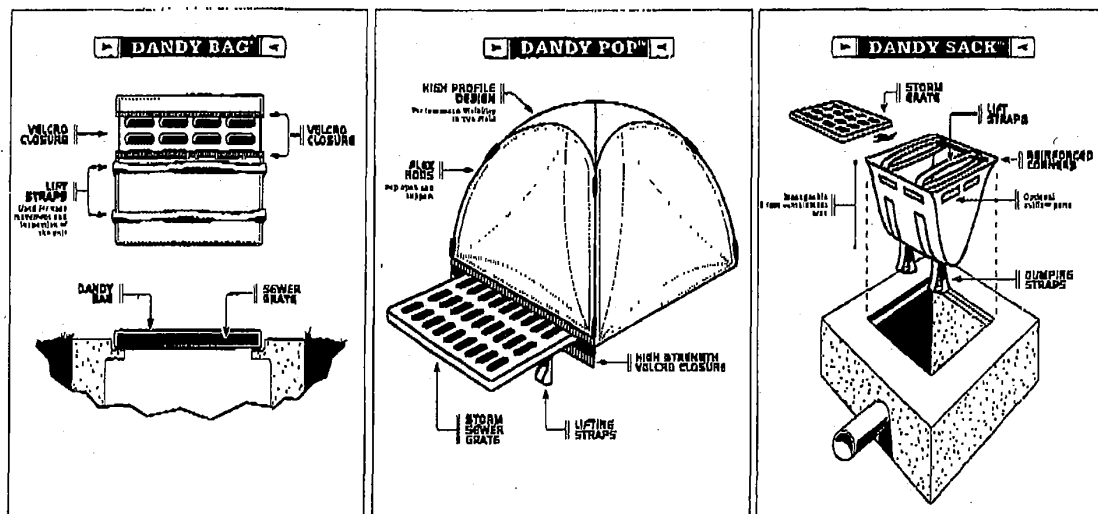
Flat Grate and Mountable Curb Inlet Protection

Technical Data for FW[®] 402 Geotextile

Property	Test Method	Units	Marv
Grab Tensile Strength (MD x CD)	ASTM D 4632	kN (lbs)	1.62 (365) x 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 x 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength (MD x CD)	ASTM D 4539	kN (lbs)	0.51 (115) x 0.33 (75)
Percent Open Area (POA)	COE -22125-86	%	10
Apparent Opening Size (AOS)	ASTM D 4751	mm (US Std Sieve)	0.425 (40)
Permittivity	ASTM D 4491	sec ⁻¹	2.1
Permeability	ASTM D 4491	cm/sec	0.14
Water Flow Rate	ASTM D 4491	l/min/m ² (gal/min/ft ²)	5907 (145)
Ultraviolet Resistance	ASTM D 4355	%	90
Color			Orange ¹

¹The orange color geotextile is a trademark of Dandy Products, Inc.

US Patent No. 5,725,762, 6,010,622, & 6,749,368



WARRANTY: Tencate Geosynthetics, Inc. warrants the performance and structural integrity for the duration of its warranty period of this information as to the ultimate use by the purchaser. Tencate Geosynthetics, Inc. warrants that the product is made of high quality materials and is designed to meet the requirements of the applicable standards. The purchaser is responsible for the proper installation and use of the product. The purchaser is responsible for the proper installation and use of the product. The purchaser is responsible for the proper installation and use of the product.

Mirafi is a registered trademark of Tencate Geosynthetics North America.

For more information visit www.tencate.com

12.03

385 South Holland Drive Tel: 800 885 9990
Pendergrass, GA 30567 Tel: 708 883 2228

Fax: 708 883 4400
www.mirafi.com



TENCATE
materials that make a difference

TENCATE
Mirafi

\$ 75 each
are higher
flow



Dandy Drop Inlet Protection

Flat Grate and Mountable Curb Inlet Protection

OUR COMPANY

TenCate develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

Dandy Products exclusively by TenCate Geosynthetics have an engineered design in which suspended solids are allowed to settle out of the slowed flow and are captured prior to entering the inlet.

OUR PRODUCTS

DANDY BAG®

The patented Dandy Bag® is designed for use with flat grates (including round) and mountable curbs to filter sediment-laden storm water.

The Difference Dandy Bag® Makes:

- Unique patented design keeps silt, sediment and debris out of storm systems.
- Reduces the need to flush/clean inlets.
- Fabricated from orange geotextile.
- Easy to install, inspect, and re-use.
- Reduces outflow turbidity.

INSTALLATION GUIDELINES

Remove grate from frame and slip into Dandy Bag®. Tuck the enclosure flap inside to completely enclose the grate. Holding the lifting devices (do not rely on lifting devices to support the entire weight of the grate), place the grate into its frame.

DANDY SACK™

The Dandy Sack™ is an open-top bag that is designed to hang underneath a storm grate to filter sediment-laden stormwater.

The Difference Dandy Sack™ Makes:

- Easy installation. No rebar required.
- Internal straps cradle grate for added security when installing & removing.
- 2ft. containment area is very manageable.
- Available in 3 standard sizes.
- Available with optional oil absorbents.
- Available with patented curb blocking technology, Dandy Curb Sack™.

INSTALLATION GUIDELINES

Remove the grate from catch basin and stand on end. Move the top lifting straps out of the way and place the grate into the Dandy Sack™ so that the grate is below the top straps and above the lower

straps. Holding the lifting straps, insert the grate into the inlet.

DANDY POP™

The Dandy Pop™ is designed for use with flat field grates to filter sediment-laden water. The Dandy Pop™ fully encloses the grate, virtually eliminating sediment infiltration.

The Difference Dandy Pop™ Makes:

- Unique patented design keeps silt, sediment and debris out of storm systems.
- Easily visible to machine operators in the field.
- Pops open in a second.
- Dome design provides easy cleaning and maintenance.
- Standard sizes to fit any grate

INSTALLATION GUIDELINES

Pop open the Dandy Pop™ near the inlet. Remove grate from frame and place into Dandy Pop™. Pull up slack and seal hook and loop fastener to enclose the grate. Holding the lifting straps, insert the grate into the inlet making sure that the grate seats completely in the frame.



Protection & Outdoor Fabrics
Aerospace Composites
Automotive Composites

Geosynthetics
Industrial Fabrics
Synthetic Grass

TENCATE
materials that make a difference

TENCATE
Mirafi

Mirafi® FF101

- comes in orange or black
- geo textile orange is \$0.10 more per yd



Mirafi® FF101 geotextile is composed of high-tenacity monofilament polypropylene yarns, which are woven into a stable network such that the yarns retain their relative position. Mirafi® FF101 geotextile is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Grab Tensile Strength	ASTM D 4632	N (lbs)	667 (150)	4236 (95)
Grab Tensile Elongation	ASTM D 4632	%	17	14
Mullen Burst Strength	ASTM D 3786	kPa (psi)	1206 (175)	
AOS ¹	ASTM D 4751	mm (U.S. Sieve)	0.60 (30)	
Flow Rate	ASTM D 4491	l/min/m ² (gal/min/ft ²)	4074 (100)	
Permittivity	ASTM D 4491	sec-1	2.9	
UV Resistance (at 500 hours)	ASTM D 4355	% strength retained	80	

¹ ASTM D 4751: AOS is a Maximum Opening Diameter Value

Physical Properties	Unit	Typical Value
Color	—	Black or Orange
Roll Dimensions (width x length)	m (ft)	0.9 x 305 (3 x 1000)
Roll Area	m ² (yd ²)	275 (333)
Estimated Roll Weight	kg (lb)	50 (110)

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ETQR8

TENCATE
materials that make a difference

FAX TRANSMITTAL

**ACF** WEST INC.
GEOSYNTHETIC PRODUCTSACF West, Inc. is a D.B.A. name for Oregon Geosynthetics, Inc. in Oregon and N.W. Geosynthetics, Inc. in Washington and IdahoATTN: KEVIN CO. EDM FAX #: 425-646-9523SENT BY: Dan DATE FAXED: 3/05/09 TOTAL # PAGES: 2 (Including Cover)MESSAGE: SPEC FOR ULTRA DRAIN CB INSERTSWoodinville Corporate Center II Bldg. A #400
15540 Woodinville-Redmond Road, Woodinville, WA 98072425-415-6115
800-423-4567

Fax# 425-415-6126



Ultra-DrainGuard®

Specifications

Minimum Average Fabric Values

Properties	ASTM Test	Value
Material: Non-woven, Polypropylene Geotextile		
Size Dimensions: 48" L x 36" W x 18" H		
Grab Tensile (lbs)	D 4632	215
Elongation (%)	D 4632	50
Trapezoid Tear (lbs)	D 4533	85
Puncture (lbs)	D 4833	115
Mullen Burst (psi)	D 3786	360
Permittivity (sec-1)	D 4491	0.9
Permeability (cm/sec)	D 4491	0.25
A.O.S. (U.S. sieve no.) / Microns	D 4751	80 / 180
UV Stability (strength retained %) 500 hrs	D 4355	70
Weight (oz/yd ²) (typical)	D 5261	9
Thickness (mils)	D 5199	85
Flow (through material gpm/ft ²)	D 4491	65
Flow (including bypass gpm) *		770
Flow (including bypass cfs) *		1.7
* Larger bypass flow rate designs are available		

11542 Davis Creek Court Jacksonville, FL 32256 800-353-1611

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E-mail: info@stormwater-products.com